Balantidium coli in the Urine Sediment

Jose Antonio Tesser Poloni1,*, Elizete Keitel2, Patricia Speroto Ceccon3, Carlos Franco Voegeli4, Istifanus Bala Bosan5, Giuseppe Garigli6 and Giovanni Battista Fogazzi6
1Central Laboratory of Clinical Analysis, Irmandade Santa Casa de Misericórdia de Porto Alegre (ISCMPA) Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA), Brazil
2Department of Nephrology - ISCMPA and UFCSPA, Brazil
3Central Laboratory of Clinical Analysis, ISCMPA, Brazil
4Central Laboratory of Clinical Analysis —ISCMPA, Brazil
5Department of Medicine, Nephrology Unit, - Ahmadu Bello University, Zaria, Nigeria
6Division of Nephrology and Dialysis, Ospedale Maggiore IRCCS, Via Commenda 15, I- 20122 Milan, Italy

Keywords: Urinary balantidiasis; Dilemma; Urine Sediment; Uterine cervix

Introduction

Balantidium coli is a ciliated protozoa which can infect humans. Although the infection is uncommon, it tends to be more frequent in the tropics and subtropical regions. It is often asymptomatic but may present with gastrointestinal symptoms. Few cases of urinary balantidiasis have been reported [1,2] but faecal contamination could cause diagnostic dilemma.

Clinical Image

We report Balantidium coli in urine sediment from a 59-year-old woman who was seen in a Hospital at Porto Alegre (Rio Grande do Sul, Brazil), which serves a large rural and urban population. On March 20, 2009 the asymptomatic patient of low social class presented with a clinical history of uterine cervix carcinoma, obstructive uropathy (which required a permanent bilateral ureteric stenting) and recurrent urinary tract infection. She was admitted to our center for a general check-up.

The centrifuged urinary sediment (analyzed with a bright field microscope) contained many leukocytes and bacteria intermingled with mites, yeasts, Fusarium fungi and a large number of a ciliated protozoa, whose morphology and rapid movements through the slide were all consistent with trophozoites and cysts of Balantidium coli (Figure 1). All these findings were confirmed in a new sample supplied in the afternoon of the same day. There was no specific treatment for Balantidium coli or perianal area [5], the patient was referred to the laboratory and after the patient had been instructed about the correct procedure for urine collection [3].

The finding of a large variety of microorganisms in the first two samples, coupled with the incorrect urine collection procedures used and the low social class of the patient, strongly suggest that the urine was heavily contaminated by particles coming from both the environment (eg, Fusarium fungi, which may exist in the soil of potted plants in hospital) [4] and/or the patient herself (eg, mites from pubis or perianal area [5], Balantidium coli from feces).

Maino et al. [1] reported urinary balantidiasis in an immunocompromised patient [1], while our case demonstrates just contamination. Various protozoa and helminthes can occasionally be found on urine sediment following contamination from faces in the infested person or the environment [5]. Clear instructions must be given to patients on proper urine sample collection to avoid confusion on diagnosis.

References


*Corresponding author: Jose Antonio Tesser Poloni, Rua Riveira 280/803, Porto Alegre-RS, 90670-160, Brazil, Tel: +55-51-99889730; Fax: +55-51-32148090; E-mail: jatpoloni@yahoo.com.br

Received April 08, 2015; Accepted April 20, 2015; Published April 22, 2015


Copyright: © 2015 Poloni JAT, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.